

**PEER REVIEW REPORT: DRAFT NEP WHITE SHARK STATUS REVIEW
(DR. CAMI MCCANDLESS COMMENTS)**

This final Peer Review Report summarizes the comments submitted by Dr. Cami McCandless on the draft NEP white shark status review prepared by the NMFS' Biological Review Team pursuant to two petitions to list the population as threatened or endangered under the Endangered Species Act (ESA). The draft status review report was sent to Dr. McCandless on May 17, 2013. Dr. McCandless is affiliated with NOAA Fisheries Northeast Fisheries Science Center in Narrangsett, Rhode Island.

A summary of Dr. McCandless's comments are presented below and organized by sections of the draft status review report. More detailed track change comments on the draft report are available from NMFS' Southwest Region by making a request to Craig Wingert at craig.wingert@noaa.gov or 562-980-4021. The peer review comments were considered by the BRT and incorporated as appropriate in the final NEP white shark status review (Dewar et al., 2013). The final NEP white shark status review report was used by NMFS, together with other information, to make a 12-month finding on the petitions to list the NEP white shark population as threatened or endangered under the ESA. The 12-month finding was published in the Federal Register on July 3, 2013, and concluded that a listing under the ESA was not warranted.

General Comments

- 1) The reviewer concluded that the BRT members had knowledge appropriate for assessing the different aspects of the NEP white shark population and that the status review was very thorough and the analytical methodology was appropriate given the available data.
- 2) The reviewer indicated that all known sources of data were used to review the status of the species and care was taken to account for any potential biases in the data.
- 3) The reviewer indicated that the use of a Structured Expert Decision Making process made it easy to follow the steps taken by the BRT to assess the population and adequate supporting information was given for each of the decisions made.
- 4) The reviewer concurred with the BRT's findings that the NEP white shark population is at a low risk of extinction given the available data, analyses conducted, and the reasonable assumptions made during the status review.

Executive Summary

Minor editorial comments only.

Introduction

Minor editorial comments only.

Background Information on White Sharks

1) The reviewer indicated that researchers have been working to update white shark age and growth information in the Atlantic Ocean and have recently submitted a manuscript on their research. She suggested that the new data, which shows that estimated longevity is substantially different from current estimates, could be considered by the BRT given the paucity of information on white shark life history.

DPS Determination

No Comments.

Assessment of NEP White Shark Population Extinction Risk

- 1) The reviewer was uncertain whether catch data presented in two figures (4.2 and 4.5) were for just set net fisheries or all fisheries taking white sharks. She suggested that it would be useful to investigate the changes in distribution of the set net catches and effort over time in an effort to evaluate whether the increasing trends in CPUE were due to an area effect and/or other factors.
- 2) The reviewer questioned why Table 4.1 did not include effort and catch data for the 2006-2009 small mesh drift gill net fishery when data for this gear and timeframe was included in Table 4.2.
- 3) The reviewer suggested the BRT more carefully compare the ratio of logbook and observer based CPUE data for white sharks to evaluate the effect of the Monterey Bay Aquarium program. In particular, she suggested examining the relationship before and after 2005.
- 4) The reviewer questioned whether there were any explanations for a drop in white shark catch in 2011 and suggested the use of modeling to account for factors that might affect the trend such as soak time and environmental variables.
- 5) The reviewer noted that fishing effort in southern California appears to be concentrated in nursery habitat in recent years and questioned whether set net fishing effort has always been concentrated in this area or whether regulatory changes have changed the distribution of fishing effort over time. If so, she suggested increasing CPUE could partially be attributed to an area effect.